# AMENDMENT NO. 1 DECEMBER 2021

# TO

# IS 15605 : 2005 METSULFURON METHYL WETTABLE POWDER — SPECIFICATION

(*Page* 1, *clause* **3.2.2**) **—** Substitute 'Annex A' *for* '**11.2** of IS 6940'.

(*Page* 2, *clause* **7.2**) **—** Insert Annex A at the end :

## 'ANNEX A

( *Clause* 3.2.2 )

## METHOD FOR DETERMINATION OF SUSPENSIBILITY

### A-0 OUTLINE OF THE METHOD

The method is broadly similar to that used for determining the suspensibility of wettable powders. It involves preparing 250 ml of diluted suspension allowing it to stand in a measuring cylinder under defined conditions, and removing the top nine-tenths. The remaining tenth is then assayed chemically, and the suspensibility is calculated.

### A-1 REAGENT

Standard hard water.

### A-2 APPARATUS

**A-2.1** Graduated cylinders, glass stoppered, 250 ml capacity.

**A-2.2** Glass suction tubes about 40 cm long, 5 mm internal diameter (i.d.) drawn out at one end to 2-3 mm i.d.

## A-3 PROCEDURE

**3.1** Carry out the whole procedure in duplicate. The standard hard water, measuring cylinder and sample to be used in the determination should be equilibrated to the required temperature (30 +1$^{0}$C).

Weigh the required amount (1.25 g) of sample into to a beaker. Make slurry with 30 ml standard hard water. Finally make up to 250 ml with standard hard water in the cylinder. Stopper the cylinder and invert 30 times (*see* Note 1). Place the cylinder in an upright position, free from vibration, and allow it to stand undisturbed for 30 min.

At the end of the time, quickly insert the glass tube into the cylinder and by means of a vacuum pump and suitable reservoir withdraw nine-tenths (225 ml) of the suspension. Carry out the operation in 10-15 s by maintaining the tip of the glass tube just below the falling level of the suspension, care being taken to minimize any disturbance of the suspension (*see* Note 2).

Transfer the 25 + 1 ml of suspension remaining in the cylinder quantitatively and make up with acetonitrile to the 50 ml volumetric flask. Estimate the quantity of active ingredient in terms of weight (Q) against the standard solution of known concentration using method prescribed in Annex A of IS 15615.

NOTES:

**1** To invert the cylinder, hold it with one hand at each end, insulated with a cloth, and rotate it through 180° and back again, through an imaginary fixed point midway between the hands. Ensure no bouncing occurs. Each inversion should take 2 s.

**2** It may be helpful to fit a rubber bung, larger than the cylinder mouth, as an adjustable stop so that the final level of suspension left in the cylinder is repeatable. The position of the bung can be determined by a preliminary calibration.

## A-4 CALCULATION

Calculate the suspensibility as per following equation:

$$\text{Suspensibility, percent} = \frac{111\,(C - Q)}{C}$$

Where,

$C = \frac{Wa}{100}$ = mass in the whole cylinder (g),

$Q$ = mass of active ingredient in 25 ml sample at the bottom (g),
$W$ = mass of formulation actually added to the cylinder (g), and
$a$ = percentage of active ingredient by mass in formulation.’

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